



6/11/02 11:51 AM #9
Box Seq
Docket No.: 20731 US (C38435/120940)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Akira ASAKURA *et al.*

Serial No.: 09/938,035

Filed: August 23, 2001

For: **MICROBIAL PROCESS FOR
PRODUCING L-ASCORBIC ACID, D-
ERYTHORBIC ACID, AND SALTS
THEREOF**

)
)
) Examiner: Not Yet Assigned
)
)
) Art Unit: 1651
)
)

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AUG 20 2002

TECH CENTER 1600/2900

New York, NY
August 12, 2002

**RESPONSE TO NOTICE TO COMPLY WITH REQUIREMENTS
FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE
SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Commissioner for Patents
U.S. Patent and Trademark Office
BOX SEQUENCE
P.O. Box 2327
Arlington, VA 22202

Sir:

This is in response to the NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES ("Notice") mailed June 11, 2002, which set a two-month shortened statutory period to respond. The due date for reply to the Notice is August 12, 2002 because August 11, 2002 fell on a Sunday. 35 U.S.C. § 21(b); 37 C.F.R. § 1.7 and 1.8. Accordingly, this response is filed timely upon mailing with an executed Certificate of Mailing on or before August 12, 2002. (37 C.F.R. § 1.8). It is not

believed that this response occasions any fee, but should there be any fee, please charge the same to Deposit Account No. 02-4467. A duplicate copy of this sheet is enclosed.

Please amend the application as follows:

IN THE SPECIFICATION

Please cancel the Sequence Listing on pages 41-43 of the original application and renumber the specification accordingly. Please enter the substitute Sequence Listing set forth in Exhibit A on the next page after the section entitled Abstract.

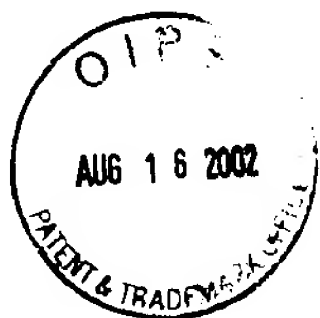
REMARKS

In the Notice, it is asserted that the content of the computer readable form ("CRF") of the Sequence Listing submitted with the response of May 7, 2002 does not comply with the requirements of 37 C.F.R. §§ 1.821 through 1.825. (See Notice at page 1). In particular, it is asserted that the use of the term "n" was detected in the Sequence Listing and that such term must be defined in the <220> and <223> sections of the Sequence Listing. (See "Raw Sequence Listing Error Summary" on page 4 of the Notice). A copy of the Notice is attached hereto as Exhibit B.

In response to the Notice, a paper copy and a CRF of a substitute Sequence Listing are attached hereto, respectively, as Exhibits A and C.

believed that this response occasions any fee, but should there be any fee, please charge the same to Deposit Account No. 02-4467. A duplicate copy of this sheet is enclosed.

Please amend the application as follows:



IN THE SPECIFICATION

Please cancel the Sequence Listing on pages 41-43 of the original application and renumber the specification accordingly. Please enter the substitute Sequence Listing set forth in Exhibit A on the next page after the section entitled Abstract.

REMARKS

In the Notice, it is asserted that the content of the computer readable form ("CRF") of the Sequence Listing submitted with the response of May 7, 2002 does not comply with the requirements of 37 C.F.R. §§ 1.821 through 1.825. (See Notice at page 1). In particular, it is asserted that the use of the term "n" was detected in the Sequence Listing and that such term must be defined in the <220> and <223> sections of the Sequence Listing. (See "Raw Sequence Listing Error Summary" on page 4 of the Notice). A copy of the Notice is attached hereto as Exhibit B.

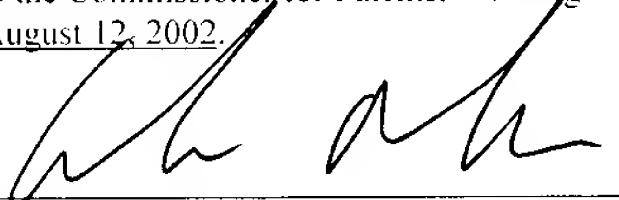
In response to the Notice, a paper copy and a CRF of a substitute Sequence Listing are attached hereto, respectively, as Exhibits A and C.

Pursuant to 37 CFR § 1.821(f), undersigned counsel hereby represents that, upon information and belief, the content of the paper and computer readable Sequence Listings enclosed herewith are the same, and no new matter has been added.

It is believed that the Sequence Listing presented herewith places the captioned application into compliance with the requirements set forth in 37 CFR § 1.821. Entry of the Sequence Listing is respectfully solicited.

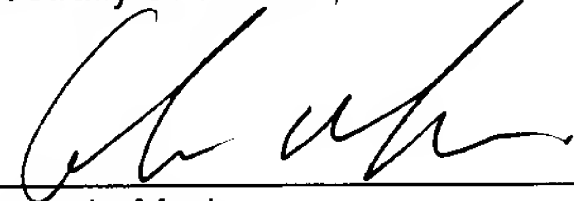
If the Examiner wishes to discuss any part of this submission, please contact the undersigned at the number indicated.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231, on August 12, 2002.



Gonzalo Merino

Respectfully submitted,

By: 

Gonzalo Merino
Registration No. 51,192
BRYAN CAVE LLP
245 Park Avenue
New York, New York 10062
(212) 692-1800

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COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov

APPLICATION NUMBER	09/938,035
FILING/RECEIPT DATE	08/23/2001
FIRST NAMED APPLICANT	Akira Asakura
ATTORNEY DOCKET NUMBER	20731 US (C38435/120940)

CONFIRMATION NO. 1662

FORMALITIES LETTER



0C0000000008265424

Date Mailed: 06/11/2002

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase Patent Software, call (703) 306-2600
- For Patent Software Program Help, call (703) 306-4119 or e-mail at patin2help@uspto.gov or patin3help@uspto.gov

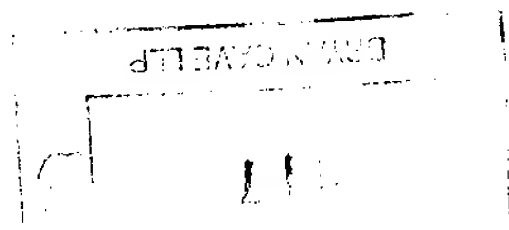
A copy of this notice MUST be returned with the reply.

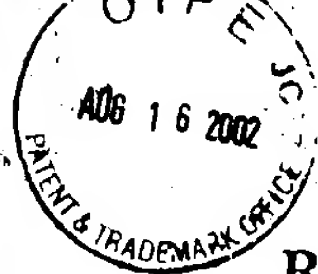
Customer Service Center
Initial Patent Examination Division (703) 308-1202

PART 1 - ATTORNEY/APPLICANT COPY

6/17/02
D
IN

Stephen M. Haracz, Esq.
Bryan Cave, LLP
245 Park Avenue
New York, NY 10167-0034

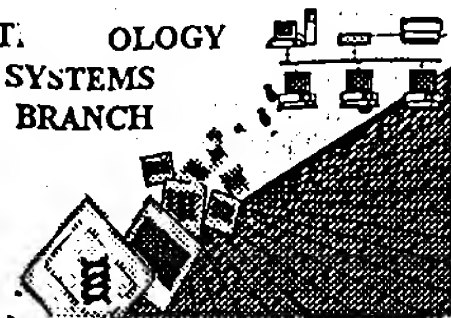




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BIOTECHNOLOGY
SYSTEMS
BRANCH



5/12

**RAW SEQUENCE LISTING
ERROR REPORT**

TECH CENTER 1600/2900

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/938,035A
Source: OPE
Date Processed by STIC: 5-23-02

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002



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Does Not Comply
Raw Sequence Listing Error Summary Corrected Diskette Needed

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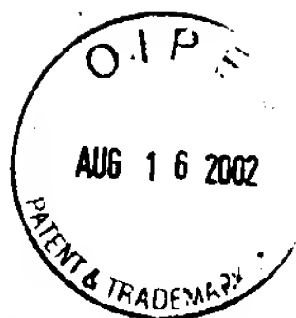
ERROR DETECTEDSUGGESTED CORRECTION

SERIAL NUMBER: 09/938,035A

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
 Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
 Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
 (OLD RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
- 8 Skipped Sequences
 (NEW RULES) Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000
- 9 Use of n's or Xaa's
 (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
 Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 Use of <220> Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses.
 Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.



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Does Not Comply
Corrected Diskette Needed

TECH CENTER 1600/2000



OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/938,035A

DATE: 05/23/2002

TIME: 18:06:05

Input Set : A:\seq list-20731,RocheVit.txt

Output Set: N:\CRF3\05232002\I938035A.raw

3 <110> APPLICANT: Roche Vitamins AG
 5 <120> TITLE OF INVENTION: Microbial process for producing L-ascorbic acid and
 6 D-erythorbic acid
 8 <130> FILE REFERENCE: Alicyclobacillus NA20, 21, FJ21 16S nuc
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/938,035A
 C--> 11 <141> CURRENT FILING DATE: 2001-08-23
 13 <150> PRIOR APPLICATION NUMBER: EP Application No. 00118059.5
 14 <151> PRIOR FILING DATE: 2000-08-23
 16 <160> NUMBER OF SEQ ID NOS: 3
 18 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

98 <210> SEQ ID NO: 3
 99 <211> LENGTH: 1495
 100 <212> TYPE: DNA
 101 <213> ORGANISM: Alicyclobacillus sp.
 103 <220> FEATURE:
 104 <221> NAME/KEY: rRNA
 105 <222> LOCATION: (1)..(1495)
 106 <223> OTHER INFORMATION: FJ-21 Partial 16SrRNA gene sequence
 108 <400> SEQUENCE: 3

109	aggacgaacg	ctggcggcgt	gcctaataca	tgcaagtcga	gcggacctct	tctgaggtca	60
110	gcggcggaacg	ggtgaggaac	acgtgggtaa	tctgcctttc	agaccggaat	aacgcccgga	120
111	aacgggcgct	aatgccgat	acgcccgcga	ggaggcatct	tcttgcgggg	aaaggcccga	180
W--> 112	ttggggccgct	gagagaggag	cccgcggcgc	attagcctgt	tgccggggta	acggcccacc	240
113	aaggcgacga	tgcgtagccg	acctgagagg	gtgaccggcc	acactgggac	tgagacacgg	300
114	cccagactcc	tacgggaggg	agcagtaggg	aattcttcgc	aatgggcgca	agcctgacgg	360
115	agcaacgccg	cgtgagcgaa	gaaggccttc	gggttgtaaa	gctctgttgc	tcggggagag	420
116	cggcatgggg	agtggaaagc	cccatgcgag	acggtaccca	gtgaggaagc	cccggctaac	480
117	tacgtgccag	cagccgcggt	aaaacgtagg	gggcgagcgt	tgtccggaat	caactggcgt	540
118	aaagggtgcg	taggcggtcg	agcaagtctg	gagtgaaagt	ccatggctca	accatgggat	600
119	ggctctggaa	actgcttgac	ttgagtgtcg	gagaggcaag	gggaattcca	cgtgtagcgg	660
120	tgaaatgcgt	agagatgtgg	aggaatacca	gtggcgaaag	cgccttgctg	gacagtgaat	720
121	gacgctgagg	cacgaaagcg	tggggagcaa	acaggattag	ataccctggt	agtccacgcc	780
122	gtaaacgatg	agtgttaggt	gttggggggg	cacaccccag	tgcggaagga	aacccaataa	840
123	gcaactccgc	tggggagtag	ggtcgcaaga	ctgaaactca	aaggaattga	cgggggcccc	900
124	cacaagcagt	ggagcatgtg	gtttaattcg	aagcaacgcg	aagaacctta	ccagggcttg	960
125	acatccctct	gacgggtgca	gagatgcacc	ttcccttcgg	ggcagaggag	acagggtggt	1020
126	catggttgct	gtcagctcgt	gtcgtgagat	gttgggttca	gtcccgaac	gagcgcaacc	1080
W--> 127	cttgacctgt	gttaccagcg	cgttggggcg	gggactcaca	ggtgactgcc	ggcgtaagtc	1140
128	ggaggaaggc	ggggatgacg	tcaaatcatc	atgccctga	tgtcctgggc	tacacacgtg	1200

see item #9
on ERROR SUMMARY
SHEET

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/938,035A

DATE: 05/23/2002

TIME: 18:06:05

Input Set : A:\seq list-20731,RocheVit.txt

Output Set: N:\CRF3\05232002\I938035A.raw

129 ctacaatggg cggtagaaag ggagggcgaag ccgcgaggcg gagcgaaacc caaaaagccg 1260
130 ctcgtagttc ggattgcagg ctgcaactcg cctgcatgaa gccggaattg ctagtaatcg 1320
131 cggatcagca tgccgcggtg aatacgttcc cgggccttgt acacaccgcc cgtcacacca 1380
132 cgagagtcgg caacaccgga agtcggtgag gtaaccccgga aaggggagcc agccgccgaa 1440
133 ggtgggggtcg atgattgggg tgaagtcgta acaaggtagc cgtaccggaa ggtgc 1495

E--> 136 1

E--> 139 1

Remove extra material at end
of file

VERIFICATION SUMMARY

DATE: 05/23/2002

PATENT APPLICATION: US/09/938,035A

TIME: 18:06:06

Input Set : A:\seq list-20731,RocheVit.txt

Output Set: N:\CRF3\05232002\I938035A.raw

L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:34 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:180
L:47 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:960
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:1380
L:73 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:180
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:180
L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:1080
L:136 M:254 E: No. of Bases conflict, this line has no nucleotides.
M:254 Repeated in SeqNo=3